

**REMARKS/ARGUMENTS**

Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

At the outset, Applicants acknowledge with appreciation the courtesies extended by the Examiner and her Supervisor at an interview held with counsel of record for Applicants and counsel for the Assignee. The following comments and remarks are consistent with the discussion at the interview, although some modifications have been made to the claims presented for discussion during the interview.

Upon entry of the above amendments, claims 13-50 will be pending in this application. The amendments to the claims are supported by the original disclosure, including the specification, claims and drawing figures.

The rejection of claims 13-17, under 35 U.S.C. §112, second paragraph, is respectfully traversed in view of the amendments to claim 13.

In this regard, claim 13 is amended to clarify that the detected emissions include the fluorescent lifetime of the detected signal corresponding to the emitted radiation from the security feature.

The Examiner has also questioned what electronic selection and what photodiode signals are being referred to in claim 13. One skilled in the art would understand that a photodiode or array of photodiodes is used to provide signals which may be electronically detected.

Claim 16 is amended to delete the reference to "long-lived."

With respect to claim 17, the Examiner again questions the "electronic signals from a photodiode signal." Applicants refer to the above comments.

Accordingly, for the above reasons, the rejection of claims 13-17 is respectfully traversed. Withdrawal of this rejection is respectfully requested.

Reconsideration and withdrawal of the rejection of claims 1-4 and 6-8 under 35 U.S.C. §102(b), as anticipated by Kaule *et al.* (US 4,451,521) (hereinafter "the '521 patent"), is respectfully requested for at least the following reasons.

This rejection is considered to be moot in view of the cancellation of claims 1-4 and 6-8.

However, in order to materially advance prosecution and as explained during the aforementioned interview, as now set forth in new claim 18, a borosilicate glass

is used as the carrier. Accordingly, claims 18-24 define a patentable invention with regard to the '521 patent.

Similarly, new claim 25 recites a glass bead or plastic bead carrier incorporating at least two rare earth dopants. Since this feature is also missing from the '521 patent, claims 25-28 are also directed to patentable subject matter.

Therefore, claims 25-28 are novel and patentable with respect to the '521 patent.

New claim 29, directed to an "item," recites that the optically detectable security marker, which comprises at least one rare earth dopant and a carrier (wherein the carrier and the rare earth dopant interact to provide a unique fluorescent fingerprint with respect to the rare earth dopant alone and to the undoped carrier), is incorporated in a "media." Claim 29 further explains that the unique fluorescent fingerprint is independent of the media.

Accordingly, the subject matters of claims 29-39 are patentably distinct from the '521 patent.

Therefore, withdrawal of the reliance on the '521 patent as anticipating or rendering obvious any of the pending claims is respectfully requested.

Reconsideration and withdrawal of the rejection of claims 1-4, under 35 U.S.C. §102(b), as anticipated by Bergner *et al.* (US 6,165,592) (hereinafter, "the '592 patent"), is respectfully requested for at least the following reasons.

As noted above, claims 1-4 are cancelled, such that this rejection is moot.

However, in order to materially advance prosecution and as explained during the aforementioned interview, as now set forth in new claim 18, a borosilicate glass is used as the carrier. Accordingly, claims 18-24 define a patentable invention with regard to the '592 patent.

Therefore, at least for the reason that borosilicate glass is not disclosed in the '592 patent, withdrawal of the reliance on this patent as relevant to the pending claims is respectfully requested.

Reconsideration and withdrawal of the rejection of claims 1, 2, and 6-17, under 35 U.S.C. §102(a), as anticipated by Jones *et al.* (WO 03/105075) (hereinafter "the '075 publication"), is respectfully requested for at least the following reasons.

Again, in view of the cancellation of the rejected claims 1-12, this ground for rejection is moot with respect to those claims.

Claims 13-16, which are directed to a system for validating an item having an optically detectable security feature emitting light at one of a plurality of pre-selected wavelengths, are patentably distinct over the '075 publication for at least the following reasons.

First, it is noted that the amended claim 13 clarifies that the carrier is a glass or plastic carrier which, admittedly, is not disclosed in the '075 publication.

Second, claim 13 is amended to explain that the permissible wavelengths for the light emission are those of a modified intrinsic set of electronic energy levels resulting from the interaction between the rare earth dopant and the glass or plastic carrier (*see, e.g.*, page 2, lines 9-15; page 3, lines 5-6).

Third, the disclosure of the '075 publication, which is directed to rare earth chelates, explains that the variation of the length of the chelate linkers alters the lifetime of the fluorescent emissions and is used by applicants as the security feature.

The detection system of the '075 publication is based on a wavelength filtering mechanism and the detection of the lifetime decay profile of the lanthanide chelates as the security fingerprint. The lifetime decay profile is then compared with a database of profiles in order to authenticate the response for security purposes. Applicants' system is based on the rare earth doped glass/polymer carrier markers as the security taggant and may utilize, for example, lifetime filtering and the wavelength characteristic response for security purposes.

Accordingly, the rejection, as applied against claims 13-16, is respectfully traversed and should be withdrawn.

Claim 17, as amended, among other features, recites glass bead carriers. Since glass bead carriers are not disclosed by the '075 publication, this rejection should be withdrawn.

Furthermore, in order to materially advance prosecution and as explained during the aforementioned Interview, as now set forth in new claim 18, a borosilicate glass is used as the carrier. Accordingly, claims 18-24 define a patentable invention with regard to the '075 publication.

Similarly, new claim 25 recites a glass bead or plastic bead carrier incorporating at least two rare earth dopants. Since this feature is also missing from the '075 publication, claims 25-28 are also directed to patentable subject matter.

Therefore, claims 25-28 are novel and patentable with respect to the '075 publication.

New claim 29, directed to an "item" recites that the optically detectable security marker, which comprises at least one rare earth dopant and a glass or plastic carrier (wherein the carrier and the rare earth dopant interact to provide a unique fluorescent fingerprint with respect to the rare earth dopant alone and to the undoped carrier), is incorporated in a "media." Claim 29 further explains that the unique fluorescent fingerprint is independent of the media.

Therefore, claims 29-39 are believed to be patentably distinct over the '075 publication.

Remaining new claims 40-50 also recite, for example, a glass or plastic carrier, thereby distinguishing over the '075 publication for at least this limitation.

Accordingly, all of the pending claims are considered to fully and patentably distinguish over the disclosure of the '075 publication and withdrawal of the reliance on this document is respectfully requested.

Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Respectfully submitted,

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